IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
    Joerg Ehrhardt, *et al.*

Application No.: 09/776,040	Confirmation No.: 2464
Filed: February 1, 2001	Art Unit: 2174
For: SETTING UP A COMMUNICATION PROCEDURE BETWEEN INSTANCES AND A PROTOCOL TESTER USING THE METHOD	Examiner: Peng Ke

APPEAL BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

    This is an appeal from the Examiner's final rejection of the above-identified application as set forth in the Final Office Action dated December 10, 2008 ("Final Action").

    This brief contains items under the following headings as required by 37 C.F.R. § 41.37(c) and M.P.E.P. § 1205.02:

I.	Real Party In Interest
II	Related Appeals and Interferences
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I.   REAL PARTY IN INTEREST

The real party in interest for this appeal is:

Tektronix, Inc., an Oregon corporation, which is a subsidiary of Danaher Corporation, a Delaware corporation.

II.   RELATED APPEALS AND INTERFERENCES

There are no prior or pending appeals, interferences or judicial proceedings known to Appellants, Appellants' legal representative or assignee which may be related to, directly affect or have a bearing on the Board's decision in this appeal.

III.   STATUS OF CLAIMS

A.   Total Number of Claims in Application

Claims 1-20 are pending in the application and stand finally rejected under 35 U.S.C. § 103.

B.   Current Status of Claims

1.   Claims canceled: None

2.   Claims withdrawn from consideration but not canceled: None.

3.   Claims pending: 1 - 20.

4.   Claims allowed: None.

5.   Claims rejected: 1 - 20.

C.   Claims On Appeal

The claims on appeal are claims 1 - 20.

IV.   STATUS OF AMENDMENTS

No amendments have been submitted by Appellants after the Examiner's final rejection.

V.   SUMMARY OF CLAIMED SUBJECT MATTER

A summary of the claimed subject matter is provided, with reference to page numbers

and line numbers and to the item numbers identified in the Figures.

Independent claim 1 is a method claim for a method of setting up a communication procedure between instances. (Page 2, lines 19-20; Figure 1). The method comprises the steps of selecting the instances that take part in the communication procedure. (Page 2, lines 21-22; page 4, lines 3-4; Figure 1). One instance is a protocol tester and another instance is an item under test. (Page 4, lines 7-9, 21-22; Figure 2, ref. nos. 25; 27). The method selects a protocol layer to be emulated by the protocol tester for testing a specified protocol layer of the item under test on the basis of the communication procedure. (Page 4, line 23 – page 5, line 1; Figure 2, ref. nos. 29a, 29b). The protocol layer is selected from a displayed list of protocol layers that are capable of being emulated by the protocol tester. (Page 4, line 23 – page 5, line 1; Figure 2, ref. nos. 29a, 29b). The list of protocol layers includes at least one layer 2 protocol from an OSI (Open Systems Interconnection) reference model. (Figure 2, ref. nos. 29a, 29b). The method then selects abstract communication interfaces of the emulated protocol layer for the communication procedure. (Page 5, lines 5-8; Figure 3, ref. nos. 32a, 32b). The abstract communication interfaces are selected from a displayed list of abstract communication interfaces associated with the selected protocol layer. (Figure 3, ref. nos. 32a, 32b). The method then selects communication data contained in description files to be exchanged at the abstract communication interfaces. (Page 5, lines 9-12; Figure 4, ref. no. 34). The method automatically sets up the communication procedure through the protocol tester on the basis of the selections made in the selecting steps. (Page 6, lines 6-14; Figure 7). The selection of the parameters for the abstract communications interfaces and the communication data selecting steps are made graphically. (Figures 3 and 4).

Independent claim 8 is an apparatus claim related to a protocol tester. (Page 2, lines 19-21). The protocol tester comprises means for selecting instances taking part in a communication procedure. (Page 2, lines 21-22; page 4, lines 3-4; Figure 1) One of the instances is the protocol tester and another instance is an item under test. (Page 4, lines 7-9, 21-22; Figure 2, ref. nos. 25; 27). The protocol tester further comprises means for displaying a list of protocol layers capable of being emulated by the protocol tester. (Page 4, line 23 – page 5, line 1; Figure 2, ref. nos. 29a, 29b). The list of protocol layers includes at least one layer 2 protocol from an OSI (Open Systems Interconnection) reference model. (Figure 2, ref. nos. 29a, 29b). The protocol tester further comprises means for selecting a protocol layer

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to be emulated by the protocol tester for testing a specified protocol layer of the item under test on the basis of the communication procedure. (Page 4, line 23 – page 5, line 1; Figure 2, ref. nos. 29a, 29b). The protocol tester comprises means for displaying a list of abstract communication interfaces for the communication procedure. (Page 5, lines 5-8; Figure 3, ref. nos. 32a, 32b). The list of abstract communication interfaces are associated with the selected protocol layer to be emulated. (Page 5, lines 5-8; Figure 3, ref. nos. 32a, 32b). The protocol tester comprises means for selecting abstract communication interfaces of the emulated protocol layer for the communication procedure. (Page 5, lines 5-8; Figure 3, ref. nos. 32a, 32b). The protocol tester comprises means for selecting communication data contained in description files to be exchanged at the abstract communication interfaces. (Page 5, lines 9-12; Figure 4, ref. no. 34). The protocol tester comprises means for automatically setting up the communication procedure through the protocol tester on the basis of the selections of the various selecting means, with parameters for the abstract communication interfaces and the communication data selecting means being made graphically. (Page 6, lines 6-14; Figures 3, 4, 7). The recited "means" features in claim 8 are means-plus-function elements as set forth under 35 U.S.C. § 112, ¶ 6. The structures corresponding to the claimed functions are a graphical user interface (GUI), such as on a personal computer (PC) screen, on which symbols or text are selected by a "mouse" or equivalents thereof. (Page 4, lines 2-7; Figure 1).

Claim 20 is an apparatus claim directed to a graphical user interface for a protocol tester. The graphical user interface comprises means for graphically selecting devices to be used in a communication procedure. (Page 2, lines 21-22; page 4, lines 3-4; Figure 1). A first device is the protocol tester, and a second device being an item under test. (Page 4, lines 7-9, 21-22; Figure 2, ref. nos. 25; 27). The graphical user interface comprises means for displaying a list of protocol layers capable of being emulated by the protocol tester. (Page 4, line 23 – page 5, line 1; Figure 2, ref. nos. 29a, 29b). The list of protocol layers includes at least one layer 2 protocol from an OSI (Open Systems Interconnection) reference model. (Figure 2, ref. nos. 29a, 29b). The graphical user interface comprises means for graphically selecting a protocol layer to be emulated by the protocol tester for testing a specified protocol layer of the item under test. (Page 4, line 23 – page 5, line 1; Figure 2, ref. nos. 29a, 29b). The graphical user interface comprises means for displaying a list of service access points for

the communication procedure. (Page 5, lines 5-8; Figure 3, ref. nos. 32a, 32b). The list of service access points interfaces associated with the selected protocol layer. (Figure 3, ref. nos. 32a, 32b). The graphical user interface comprises means for graphically selecting service access points of the protocol layer to be emulated for the communication procedure. (Page 5, lines 5-8; Figure 3, ref. nos. 32a, 32b). The graphical user interface comprises means for graphically selecting communication data to be exchanged at the service access points, the communication data contained in description files. (Page 5, lines 9-12; Figure 4, ref. no. 34). The graphical user interface further comprises means for automatically setting up the communication procedure through the protocol tester on the basis of the selections of the various selecting means. (Page 6, lines 6-14; Figure 7). The recited "means" features in claim 20 are means-plus-function elements as set forth under 35 U.S.C. § 112, ¶ 6. The structures corresponding to the claimed functions are a graphical user interface (GUI), such as on a personal computer (PC) screen, on which symbols or text are selected by a "mouse" or equivalents thereof. (Page 4, lines 2-7; Figure 1).

VI.   GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

   A.   Whether claims 1-3, 5-10, 13, 14, 17, 19 and 20 are unpatentable under 35 U.S.C. § 103(a) as being obvious based on U.S. Patent No. 5,732,213 to Gessel (hereinafter "Gessel") in view of U.S. Patent No. 5,027,343 to Chan et al. (hereinafter "Chan"); and

   B.   Whether claims 4, 11, 15, 16 and 18 are unpatentable under 35 U.S.C. § 103(a) as being obvious based on Gessel in view of Chan in view of U.S. Patent No. 6,560,723 to Matsui (hereinafter "Matsui").

VII.   ARGUMENT

A.   Claims 1-3, 5-10, 13, 14, 17, 19 and 20 are patentable under 35 U.S.C. § 103(a) over Gessel in view of Chan

   Independent claims 1, 8 and 20 stand rejected under 35 U.S.C. § 103(a) as assertedly being unpatentable over Gessel in view of Chan.

1.   The Gessel reference

   The Gessel patent is directed to a system and method for testing Open Systems Interface (OSI) layers 3 through 7 of a communication protocol. (Abstract). The Gessel

system tests OSI layers 3-7 as they are used in a local area network (LAN) between a protocol simulator on one end and either a target telecommunications node or a target telecommunications system emulator on the other end. (Abstract). Gessel teaches that OSI layers 1 and 2 are frequently unaffected by new functions and services and, therefore, do not need to be tested. (Column 5, lines 5-8). As a result, the Gessel system removes the physical (layer 1) and data link (layer 2) protocol layers and provides for testing of just OSI layers 3-7. (Column 5, lines 13-27). In particular, layers 1 and 2 of the communication protocol are replaced with the TCP/IP protocol on a LAN. (Column 5, lines 23-30). Gessel teaches using an Internet socket for a UNIX application that simulates the hardware of normal protocol layers 1 and 2 for the unit under test. (Column 7, lines 35-40). Gessel discloses several computer displays that are used to select components used in a test network and to monitor messages in the network. (Figures 10-16; col. 4, ln. 46 - col. 5, ln. 2). Gessel does not disclose a display that allows the user to select protocol layers, service access points, or communication data. The Gessel protocol tester and target telecommunication node are linked by the LAN instead of normal communication links for the protocol under test. Accordingly, layers 1 and 2 of the communication protocol under test do not exists and, therefore, are not available in the Gessel system.

       2.   **The Chan reference**

     The Chan patent discloses a telecommunications system including an end-to-end ISDN test access system 21. (Column 4, lines 53-55). The test access system 21 includes a packet switching network and adaptor interfaces for a local site (i.e. tester) and a remote site (i.e. system under test). (Figure 1; column 4, lines 55-60). Test access system 21 is inserted in place of an ISDN network between ISDN interfaces 27/28. (Figure 1; column 5, lines 15-26). Accordingly, in Chan, the normal physical layer (OSI layer 1) of the network-under-test is replaced with test system 21. (Column 5, lines 37-44). Chan teaches rerouting normal ISDN traffic over X.25 access links using test system 21 to evaluate the processing of OSI layers 1-3 by the system under test at the remote site. (Column 6, lines 9-15). Chan teaches that the test access system 21 is necessary because - at the time of filing (July 1989) - there was usually no network to transport ISDN traffic between the test system and the remote system under test. (Column 1, lines 48-55). Chan does not teach or suggest using a protocol tester in which the user selects protocol layers, service access points, or communication data

from a display.

       3.   **The proposed combination of Gessel and Chan fails to teach or suggest each and every element of the pending claims.**

The Gessel and Chan references fail to teach or suggest a protocol tester in which the user selects protocol layers, service access points, or communication data from a display as required in the pending claims.

Claim 1 recites:

       selecting a protocol layer . . . , the protocol layer **selected from a displayed list** of protocol layers that are capable of being emulated by the protocol tester . . .;
       selecting abstract communication interfaces . . ., the abstract communication interfaces **selected from a displayed list** of abstract communication interfaces associated with the selected protocol layer; . . . and
       automatically setting up through the protocol tester the communication procedure on the basis of the selections made in the above selecting steps, with parameters for the abstract communications interfaces and the communication data **selecting steps being made graphically.**

Claim 8 recites:

       means for displaying a list of protocol layers capable of being emulated by the protocol tester, . . . ;
       means for displaying a list of abstract communication interfaces for the communication procedure, the list of abstract communication interfaces associated with the selected protocol layer to be emulated; . . . and
       means for automatically setting up the communication procedure through the protocol tester on the basis of the selections of the various selecting means, with parameters for the abstract communication interfaces and the communication data **selecting means being made graphically**.

Claim 20 recites:

       means for graphically selecting devices to be used in a communication procedure, a first being the protocol tester and a second device being an item under test;
       means for displaying a list of protocol layers capable of being emulated by the protocol tester, . . . ;
       means for graphically selecting a protocol layer to be emulated by the protocol tester for testing a specified protocol layer of the item under test;
       means for displaying a list of service access points for the communication procedure, the list of service access points interfaces

associated with the selected protocol layer;
> **means for graphically selecting service access points** of the protocol
layer to be emulated for the communication procedure;
> **means for graphically selecting communication data** to be
exchanged at the service access points, the communication data contained in
description files.

The Gessel and Chan references are directed to the set-up of a network or device under test. On the other hand, the pending claims are directed to a protocol tester, which is a separate and distinct component from the tested network or device.

The Gessel patent discloses a visual display of a network that allows selection of nodes to be tested. (Figure 12; column 10, lines 43-58). However, Gessel does not teach or suggest that additional test parameters - such as a protocol layer, abstract communication interface, service access points, or communication data - may be selected from a displayed list. Moreover, Gessel fails to teach or suggest that a displayed list of abstract communication interfaces or service access points interfaces are associated with a selected protocol layer.

Applicant has noted in prior responses – such as in the Amendment filed September 24, 2008 and in the Response under 37 C.F.R. under 37 C.F.R. § 1.116 filed February 6, 2009 – that the Gessel reference does not teach or suggest displaying a list of abstract communication interfaces or a list of service access points and allowing a user to select abstract communication interfaces or a list of service access points for a communication procedure. The Examiner has not responded to this issue and has not specifically identified where the claimed "display" and "selection" limitations can be found in the cited references.

The Chan reference is not cited as teaching these display or selection elements. Upon further review, it is apparent that the Chan reference also fails to teach or suggest the above-indicated elements of claims 1, 8 and 20.

4. Not obvious to combine the Gessel and Chan references

The Final Action states that it would have been obvious to combine the teachings of Chan into the method of Gessel "in order to identify and to prevent transmission errors in the setting of circuits and transmission equipment." Applicant traverses this motivation for the proposed combination.

Gessel is clearly not interested in the operation of OSI layers 1 and 2 and explicitly teaches that layers 1 and 2 are not affected by the development of new functions and services. (Col. 5, lns. 5-9). The entire purpose of the Gessel patent is to replace the existing level 1 and 2 protocols with the TCP/IP protocol. (Col. 5, lns. 22-29). Gessel removes the original layer 1 and 2 protocols by substituting a LAN network between the test components. (Col. 5, lns. 26-36). Therefore, one of ordinary skill in the art having knowledge of the Gessel system would not be motivated to look for another teaching regarding OSI layers 1 and 2, because Gessel teaches that these layers do not need to be tested. Gessel teaches away from the modification suggested in the Final Action because such a modification adds features that are clearly labeled as unwanted in the Gessel disclosure.

Accordingly, the proposed combination of Gessel with Chan fails to teach or suggest all of the elements of independent claims 1, 8, and 20. Applicant respectfully requests that the Examiner withdraw the current rejections and pass the claims to allowance.

Claims 2, 3, 5-7, 9, 10, 13, 14, 17, and 19 depend from independent claims 1 and 8, respectively, and add further limitations. It is respectfully submitted that these dependent claims are allowable by reason of depending from an allowable claim as well as for adding new limitations.

B.   Claims 4, 11, 15, 16 and 18 are patentable under 35 U.S.C. § 103(a) over Gessel in view of Chan in view of Matsui

Claims 4, 11, 15, 16 and 18 stand rejected as assertedly being unpatentable over Gessel in view of Chan in view of Matsui.

As noted above in section VII.A.3, the proposed combination of Gessel and Chan fails to teach or suggest all of the elements of independent claims 1, 8 or 20.

The Matsui reference is not cited as teaching the "display" or "selection" elements that are missing from Gessel and Chan. Upon review of the Matsui reference, it is apparent that Matsui also fails to teach or suggest the above-indicated elements of claims 1, 8 and 20.

Accordingly, the proposed combination of Gessel with Chan and Matsui fails to teach or suggest all of the elements of independent claims 1, 8, and 20. Claims 4, 11, 15, 16 and 18 depend from independent claims 1 and 8, respectively, and add further limitations. It is respectfully submitted that these dependent claims are allowable by reason of depending from

an allowable claim as well as for adding new limitations. Applicant respectfully requests that the Examiner withdraw the current rejections and pass the claims to allowance.

C.   Conclusion

For all the reasons discussed above, the rejections of claims 1-20 should be reversed as the claims relate to patentable inventions that are not rendered obvious by the cited combination of Gessel, Chan and Mastui.

Accordingly, Appellants respectfully request that the rejection of claims 1-20 be reversed and that the case be passed on to issuance.

Respectfully submitted,

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CLAIMS APPENDIX

1.   (Previously Presented) A method of setting up a communication procedure between instances, comprising the steps of:

selecting the instances that take part in the communication procedure, one instance being a protocol tester and another instance being an item under test;

selecting a protocol layer to be emulated by the protocol tester for testing a specified protocol layer of the item under test on the basis of the communication procedure, the protocol layer selected from a displayed list of protocol layers that are capable of being emulated by the protocol tester, the list of protocol layers including at least one layer 2 protocol from an OSI (Open Systems Interconnection) reference model;

selecting abstract communication interfaces of the emulated protocol layer for the communication procedure, the abstract communication interfaces selected from a displayed list of abstract communication interfaces associated with the selected protocol layer;

selecting communication data contained in description files to be exchanged at the abstract communication interfaces; and

automatically setting up through the protocol tester the communication procedure on the basis of the selections made in the above selecting steps, with parameters for the abstract communications interfaces and the communication data selecting steps being made graphically.

2.   (Previously Presented) The method as recited in claim 1 wherein the instances selecting step comprises the step of selecting the instances graphically, and/or the emulated protocol layer selecting step comprises the step of selecting the emulated protocol layer graphically, and the parameters selectable in these steps being assigned description files that are used in the setting up step.

3.   (Previously Presented) The method as recited in claim 1 wherein the abstract communication interfaces comprise Service Access Points (SAPs).

4.   (Original) The method as recited in claim 3 wherein the communication data comprise at least one type selected from the group consisting of Protocol Data Units (PDUs) and Abstract Service Primitives (ASPs).

5.   (Previously Presented) The method as recited in claim 1 wherein the communication data comprise at least one type selected from the group consisting of Protocol Data Units (PDUS) and Abstract Service Primitives (ASPs).

6.   (Original) The method as recited in claim 1 wherein the communication data selecting step comprises the steps of:

        graphically selecting a data format; and

        graphically setting up a communication sequence between the selected instances.

7.   (Original) The method as recited in claim 6 wherein the graphically setting up step comprises the step of entering source code.

8.   (Previously Presented) A protocol tester comprising:

means for selecting instances taking part in a communication procedure, one of the instances being the protocol tester and another instance being an item under test;

means for displaying a list of protocol layers capable of being emulated by the protocol tester, the list of protocol layers including at least one layer 2 protocol from an OSI (Open Systems Interconnection) reference model;

means for selecting a protocol layer to be emulated by the protocol tester for testing a specified protocol layer of the item under test on the basis of the communication procedure;

means for displaying a list of abstract communication interfaces for the communication procedure, the list of abstract communication interfaces associated with the selected protocol layer to be emulated;

means for selecting abstract communication interfaces of the emulated protocol layer for the communication procedure;

means for selecting communication data contained in description files to be exchanged at the abstract communication interfaces; and

means for automatically setting up the communication procedure through the protocol tester on the basis of the selections of the various selecting means, with parameters for the abstract communication interfaces and the communication data selecting means being made graphically.

9.   (Previously Presented) The protocol tester as recited in claim 8 wherein the instances selecting means and/or the emulated protocol layer selecting means comprise graphical selecting means and the parameters selected by these selecting means are assigned description files that are used in the automatically setting up means.

10.   (Previously Presented) The protocol tester as recited in claim 8 wherein the abstract communication interfaces comprise Service Access Points (SAPs).

11.   (Original) The protocol tester as recited in claim 10 wherein the communication data comprises one type selected from the group consisting of Protocol Data Units (PDUs) and Abstract Service Primitives (ASPs).

12.   (Original) The protocol tester as recited in claim 11 further comprising means for entering source codes.

13.   (Original) The protocol tester as recited in claim 8 wherein all parameters selected by all the selecting means are assigned description files that are used by the setting up means.

14.   (Previously Presented) The method as recited in claim 2 wherein the abstract communication interfaces comprise Service Access Points (SAPs).

15.   (Previously Presented) The method as recited in claim 14 wherein the communication data comprise at least one type selected from the group consisting of Protocol Data Units (PDUs) and Abstract Service Primitives (ASPs).

16.   (Previously Presented) The method as recited in claim 2 wherein the communication data comprise at least one type selected from the group consisting of Protocol Data Units (PDUS) and Abstract Service Primitives (ASPs).

17.   (Previously Presented) The protocol tester as recited in claim 9 wherein the abstract communication interfaces comprise Service Access Points (SAPs).

18.   (Previously Presented) The protocol tester as recited in claim 17 wherein the communication data comprises one type selected from the group consisting of Protocol Data Units (PDUs) and Abstract Service Primitives (ASPs).

19.   (Previously Presented) The protocol tester as recited in claim 18 further comprising means for entering source codes.

20.   (Previously Presented) A graphical user interface for a protocol tester comprising:

     means for graphically selecting devices to be used in a communication procedure, a first being the protocol tester and a second device being an item under test;

     means for displaying a list of protocol layers capable of being emulated by the protocol tester, the list of protocol layers including at least one layer 2 protocol from an OSI (Open Systems Interconnection) reference model;

     means for graphically selecting a protocol layer to be emulated by the protocol tester for testing a specified protocol layer of the item under test;

     means for displaying a list of service access points for the communication procedure, the list of service access points interfaces associated with the selected protocol layer;

     means for graphically selecting service access points of the protocol layer to be emulated for the communication procedure;

     means for graphically selecting communication data to be exchanged at the service access points, the communication data contained in description files; and

     means for automatically setting up the communication procedure through the protocol tester on the basis of the selections of the various selecting means.

EVIDENCE APPENDIX

No evidence was submitted pursuant to §§ 1.130, 1.131, or 1.132 and no other evidence was entered by the Examiner.

RELATED PROCEEDINGS APPENDIX

There are no related proceedings identified in this Brief.